

## CLAIMS

- sub  
as
1. A method for providing a precured innerliner (50) for a pneumatic tire assembly (94), said pneumatic tire assembly being built on an associated tire building drum (48) and subsequently mounted into an associated shaping and vulcanizing mold (90), the method including the steps of providing calendaring means (10) for forming a continuous strip of elastomeric material and curing means (38) for curing said continuous strip, said calendaring means being able to form said continuous strip of elastomeric material having a predetermined cross sectional profile, the method characterized by the steps of:
- utilizing said calendaring means to provide said continuous strip (12) of elastomeric material having a cross-sectional profile (66) including a center region (70) bounded by first and second lateral regions (72,74), said center region having a maximum thickness  $T_1$  at least twice a minimum thickness  $T_2$  of said first lateral region;
- utilizing said curing means to cure a predetermined portion of said continuous strip of elastomeric material, said predetermined portion having a length equal to or greater than a circumference of said associated tire building drum;
- winding said predetermined portion onto said associated tire building drum after said step of utilizing said curing means;
- cutting said predetermined portion to provide splice surfaces (58,60) after said step of utilizing said curing means; and,
- forming said innerliner (50) by joining said splice surfaces.
2. The method of claim 1 wherein said curing means is a press (40), the method further characterized by:
- providing a press platen (42) having a pressing surface (44) mating with said cross sectional profile.
3. The method of claim 1 further characterized by the step of:
- winding said predetermined portion onto a holding roll before said

step of winding said predetermined portion onto said associated tire building drum.

4. The method of claim 1 wherein said splice surfaces have a splice angle of at least 80°.

5. The method of claim 1 wherein said splice surfaces are joined with an adhesive.

6. A precured innerliner (50) for a tire assembly for use in an associated bladder-less shaping and vulcanizing mold (90), the innerliner characterized by:  
a cross-sectional profile (66) having a center region (70) bounded by first and second lateral regions (72,74), said center region having a thickness at least twice a thickness of said first lateral region.

7. The precured innerliner of claim 6 further characterized by:  
a splice having an associated splice angle of at least 80°.

8. A precured innerliner (50) for a tire assembly (94) for use in an associated bladder-less shaping and vulcanizing mold (90), the innerliner being formed by a process including the steps of providing calendaring means (10) for forming a continuous strip of elastomeric material and curing means (38) for curing said continuous strip, said calendaring means being able to form said continuous strip of elastomeric material having a predetermined cross sectional profile, the process characterized by the steps of:

utilizing said calendaring means to provide said continuous strip (12) of elastomeric material having a cross-sectional profile (66) including a center region (70) bounded by first and second lateral regions (72,74), said center region having a maximum thickness  $T_1$  at least twice a minimum thickness  $T_2$  of said first lateral region;

utilizing said curing means to cure a predetermined portion of said continuous strip of elastomeric material, said predetermined portion having

09831393-082001

-12-

Sub  
A1

a length equal to or greater than a circumference of said associated tire building drum;

winding said predetermined portion onto said associated tire building drum after said step of utilizing said curing means;

- 5 cutting said predetermined portion to provide splice surfaces (58,60) after said step of utilizing said curing means; and,  
forming said innerliner (50) by joining said splice surfaces.

9. A profiled innerliner (50) for a tire assembly for use in an associated  
10 bladder-less shaping and vulcanizing mold (90), the innerliner characterized by:  
a cross-sectional profile (66) having a center region (70) bounded by  
first and second lateral regions (72,74), said center region having a thickness at  
least twice a thickness of said first lateral region; and,  
a precured splice region.

15

T00280" E6E1E860